INSIGHT V3V™-4G
COMPUTATIONAL PERFORMANCE
V3V-FLEX CAPABILITIES

Computational Performance of INSIGHT V3V-4G Software

Volumetric Particle Image Velocimetry (PIV) has become an established technique to obtain velocity vectors from a three-dimensional volume. TSI launched in 2016 the V3V-Flex configuration, which offers an easy upgrade from PIV or TR-PIV, with a new INSIGHT V3V-4G software. The software offers new capabilities allowing a flexible camera arrangement which can increase the spatial resolution of velocity vectors to less than 1 mm. When it comes to volumetric measurement at high spatial resolution, the computational performance becomes an important point to consider.

This application note shows the test results performed at TSI to check the computational performance of the INSIGHT V3V-4G v3 software:

Percentage of total processing time for a typical processing setup with four cameras:

1. Particle Identification – 20%

2. Particle Matching – 65%

3. Particle Tracking – 10%

4. Grid Interpolation – 5%

With a standard, dual processor 4-core machine, INSIGHT V3V-4G software processes approximately 100 vector volumes per hour using four 8MP cameras.

UNDERSTANDING, ACCELERATED

TSI Incorporated – Visit our website **www.tsi.com** for more information.

USA	**Tel:** +1 800 874 2811	**India**	**Tel:** +91 80 67877200
UK	**Tel:** +44 149 4 459200	**China**	**Tel:** +86 10 8219 7688
France	**Tel:** +33 1 41 19 21 99	**Singapore**	**Tel:** +65 6595 6388
Germany	**Tel:** +49 241 523030		

V3V-FLEX-004 Rev. A (2/28/2018) A4   ©2018 TSI Incorporated   Printed in U.S.A.